

Sets (s): Triple Award

YEAR 9

SUBJECT Biology LP4

Knowledge Focus: Inhaled/exhaled and smoking



**Ysgol Uwchradd
Prestatyn
High School**

This half term : Skills, Knowledge and Understanding to be developed:

You will carry out an experiment to compare the air you breathe in with the air you breathe out and explain your observations using knowledge of respiration. You will look at the components of blood and why each is needed. You will also look at the effects of smoking on the respiration system, discussing whether smoking in public places should be banned.

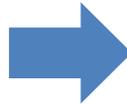
Students will have 4 lessons per fortnight.

Key Terms to be learned this half term:

oxygen, carbon dioxide, respiration, phagocyte, red blood cell, platelets, plasma, cilia, mucus, smoking, tar, nicotine, respiration, cancer, emphysema,

Week 1 and 2 Learning Objectives etc:

- Compare inhaled with exhaled by burning candles in inhaled and exhaled air.
- Write a method to plan a fair test, carry out practical work and collect repeatable data. Use knowledge of respiration to explain the results of your experiments.
- Predict how long candles will burn for in different sized beakers.



APP question on breathing and gas exchange.

Objective assessments:

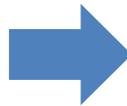
Identification of all variables and logical plan written.
Using key words to explain the results of experiments.

Homework:

Learn spellings and definitions of key words from this topic. Write the definitions into your books.

Week 3 and 4 Learning Objectives etc:

- Describe double circulation in humans, identifying key parts of the circulation system.
- Identify components of blood and draw a red blood cell and phagocyte, identifying key features.
- Make a model or poster and use to describe the structure of blood.
- Investigate different blood types and carry out an experiment to identify a mystery blood sample.



Objective assessments:

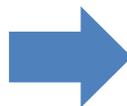
Comparison of model to components in blood.

Homework:

Puffing and panting sheet or robin the red blood cell.

Week 5 and 6 Learning Objectives etc:

- Describe the effects of smoking on the lungs and cilia.
- Discussion: Should smoking be banned in all public places?
- Compare smoking with vaping.



SA questions on the respiratory system

Objective assessments:

Discussion on smoking in public places, explaining arguments for and against.

Homework:

Revise all of your notes on the respiratory system for a test.

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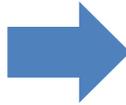
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Week 7 Learning Objectives etc:

- Create anti smoking adverts or compare smoking with other illegal and legal drugs.



Objective assessments:

Use of facts and data about smoking/drugs.

Homework:

